

REMARKS

By the above amendment, claims 5 - 10 have been amended to clarify features of the present invention with a new dependent claim 11 being presented, it being noted that claims 1 - 4 stand withdrawn from consideration.

As to the rejection of claims 5 - 10 under 35 USC 112, first paragraph, with regard to "evacuation means" by the present amendment, although the Examiner apparently recognizes that an evacuation means is common in a processing apparatus, as described, independent claim 5 has been amended to delete "evacuation means" and recite "exhaustion means for exhausting the processing chamber noting that the specification at page 10, lines 10 - 12 describe the processing chamber 1 being continuously exhausted by the use of a turbo-molecular pump or the like through an exhaust passage 8 where the exhaust rate is adjusted by a butterfly valve 9. It is noted that dependent claim 11 has been presented which recites the feature that the exhaustion means enables evacuation of the processing chamber. Further, applicants note that independent claim 8 and dependent claims 9 and 10 do not recite the feature of "evacuation means". Accordingly, applicants submit that claims 5 - 10, as amended, should now be considered to be in compliance with 35 USC 112, first paragraph.

As to the rejection of claims 5 - 10 under 35 USC 102(b) as being anticipated by Tsukazaki et al, this rejection is traversed insofar as it is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and

every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

Applicants note that by the present amendment, independent claims 5 and 8 have been amended to clarify the features of the present invention in relation to a particle detector or particle detecting unit. More particularly, claim 5 has been amended to recite the feature that the particle detector scans a laser beam in a plane inside of the processing chamber and outside of a region where the plasma is generated, and detects light scattered from a particle crossing the plane while the laser beam scans in the plane. As described in connection with Figures 2 and 3 of the drawings, for example, at page 11, lines 12 - 24, the particle detector 11 scans a laser scanning region 19 using the laser light with the laser scanning region 19 being set in a direction orthogonal to the exhaust passage 18 between the processing chamber and the exhaust passage 8. It is noted that the laser scanning region 19 represents a plane of a section of the space where the contaminants are flowing and which is laser-scanned, and in which light scattered from a particle crossing the plane is detecting . Applicants submit that irrespective of the contentions by the

Examiner, Tsukazaki et al does not disclose the recited features in the sense of 35 USC 102.

More particularly, while the Examiner contends that Tsukazaki et al discloses and/or teaches "a particle detector 15 (Figure 3; column 1, lines 44 - 59) for detecting scattered light generated from contaminants present in the processing chamber (4, 12, Figure 3; column 8, lines 10 - 67) by irradiating and scanning, with laser (15a, Figure 3; column 1, lines 44 - 59) light, a space which is defined in the processing chamber (4, 12, Figure 3; column 8, lines 10 - 67) but is outside a region where the plasma is generated via the measurement window (15c, d, Figure 3; column 1, lines 44 - 59) during processing the sample ..." (emphasis added). Applicants submit that Tsukazaki et al provides no disclosure or teaching of scanning a laser beam nor scanning a laser beam in a plane inside of the processing chamber and outside of a region where the plasma is generated, and which light scattered from a particle crossing the plane while the laser beam scan in the plane is detected as recited in independent claims 5 and 8 and the dependent claims of this application. More particularly, column 1, lines 44 - 59 of Tsukazaki et al merely describe a "laser irradiation system 15a". There is no disclosure that the laser irradiation scans a laser beam, as recited in claims 5 and 8, nor that the laser beam is scanned in a plane inside of the processing chamber and outside of a region where the plasma is generated, and that scattered light from the particle while the laser beam scans. Applicants submit that Tsukazaki et al describes an exhaust pipe 12 as illustrated in Fig. 1 thereof, for example, which extends from the processing chamber thereof, with the particle monitor 15 being arranged along the exhaust pipe, which is outside of the processing chamber. Thus, in addition to Tsukazaki et al failing to disclose scanning of a laser beam, applicants submit that Tsukazaki et al in the sense of 35

USC 102 as well as in the sense of 35 USC 103 fails to disclose or teach the scanning of a laser beam in a plane inside of the processing chamber and outside of a region where the plasma is generated, recognizing that in accordance with the present invention, the plane of scanning of the laser beam is within the processing chamber and leading to an exhaust passage therefrom. Applicants note that the dependent claims recite further features of the present invention which are also not disclosed or taught by Tsukazaki et al, irrespective of the contentions by the Examiner.

Dependent claims 6, 7, 9, 10 and 11 recite further features of the present invention which when considered with the parent claims, further patentably distinguish over the cited art.

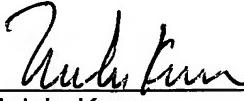
In view of the above amendments and remarks, applicants submit that independent claims 5 and 8 and the dependent claims 6, 7, 11 and 9 and 10 thereof, recite features not disclosed or taught by Tsukazaki et al, such that all claims should be considered allowable at this time. Accordingly, issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli,

Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 501.43537X00),  
and please credit any excess fees to such deposit account.

Respectfully submitted,

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